

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004693**Date Inspected:** 18-Nov-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Liu Hua Jie and Huang Wen Pang			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Bridge No:</b>	34-0006			<b>Component:</b>	OBG and SAS Tower Fabrication	

**Summary of Items Observed:**

On this date, Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector Joselito Lizardo was present as requested to perform observations on the fabrication of Orthotropic Box Girder (OBG) and SAS Tower at Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China.

The QA Inspector has randomly observed the following activities on sub-assembly Bays mentioned below;

**Bay 7: OBG - Floor Beam Sub Assembly**

FCAW(2F) fillet welding on flange to web plate of floor beam FB028-005-028 utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H following WPS-B-T-2132-3 this QA observed. ZPMC welder Liu Kaige ID # 044830 was seen performing the task. Tack/fit-up of various stiffeners to web plate on floor beam FB039-002 weld joints 104, 109, 096/097, and 089/090 using THJ506 electrode was observed. The QA Inspector randomly observed ZPMC CWI Huang Wen Pang monitoring preheat and weld parameters.

This QA randomly observed ZPMC welder Zhang Qing Quan ID Number 044774 and Chen Chuan Zong ID #044824 utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2231-B-Uc2-F to weld CJP fill pass on flange to web plate tee joint on floor beam FB029-005-125, 126 and 127 and FB023-004-125 and 127 respectively. On another floor beam FCAW(1G) CJP welding fill pass on flange to web plate corner joint of floor beam FB020-002-127 using the same procedure. The QA Inspector randomly observed ZPMC CWI Huang Wen Pang monitoring preheat and weld parameters.

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## WELDING INSPECTION REPORT

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### Bay 8: Tower Diaphragm

This QA observed ZPMC welder ID #045133 SMAW(2G) PJP welding fill pass on 40mm stiffener plate to (bottom) tower double diaphragm WSD1-SA301B/B weld joint 8. ZPMC welder was noted utilizing Excalibur E9018M H4R, 4.8mm diameter electrode following WPS-B-T-3312-Tc-P5. The QA Inspector randomly observed ZPMC CWI Lvliqing monitoring weld parameters.

Preheating of tower diaphragm flange NSD1-SA359-15 and WSD1-SA422-1 using ceramic thermal blanket was observed. After attaining proper preheat at NSD1-SA359-15, root pass was welded into this flange to plate fillet connection by ZPMC welders ID #202654 and ID #045175. The QA Inspector randomly observed ZPMC CWI Liu Hua Jie monitoring weld parameters.

The QA Inspector randomly observed ZPMC welder Xeu Pei Pei ID Number 050323 utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-3221-B-U3c-S-1, to weld the fill pass on 75mm plate splice butt joint of tower diaphragm plate NSD1-SA325-1B. QA Inspector randomly observed ZPMC CWI Lvliqing monitoring weld parameters.

Fillet weld repair on cover of tower diaphragm flange to plate SSD1-SA361-15 using TL-508 electrode in progress. Preheat prior welding was being implemented and ZPMC/QC was seen monitoring the repair.

### Summary of Conversations:

No significant conversation occurred today.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, (858) 232-7081, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Lizardo,Joselito	Quality Assurance Inspector
<b>Reviewed By:</b>	Cuellar,Robert	QA Reviewer

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